

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) In an electric machine with a circumferentially segmented stator, a winding end cap assembly for a stator segment assembly including a stator core that includes a plurality of stator plates that are stacked in an axial direction and that define ~~defining~~ a stator pole, comprising:

first and second end caps that are connected to said stator plates of said stator core that are located at opposite axial end surfaces of said stator core; and

a first inner winding retainer section that extends axially to connect an inner end of said first end cap to an inner end of said second end cap.

2. (Original) The winding end cap assembly of claim 1 further comprising:
a second inner winding retainer section that extends axially to connect said inner end of said first end cap to said inner end of said second end cap.

3. (Original) The winding end cap assembly of claim 2 wherein said first and second end caps include an outer section, an inner section and a hub section that connects said outer section to said inner section.

4. (Original) The winding end cap assembly of claim 3 wherein said

winding end cap assembly is made of a magnetically insulating material and said electric machine is a switched reluctance electric machine.

5. (Currently Amended) The winding end cap assembly of claim ~~4~~1 ~~wherein said stator of said switched reluctance electric machine is segmented and includes a plurality of stator segment assemblies~~further comprising winding wire that is wound around said stator core and said end cap assembly, wherein said winding end cap assembly is not located between said winding wire and radial side surfaces of said stator core.

6. (Currently Amended) The winding end cap assembly of claim ~~5~~4 wherein said stator segment assemblies comprise a stator segment core including a stack of stator plates that have a radially outer rim section and a tooth section that extends radially inwardly from a center portion of said radially outer rim section.

7. (Original) The winding end cap assembly of claim 6 wherein said outer sections of said first and second end caps align with said outer rim section of said stator plates, said inner sections of said first and second end caps align with radially inner ends of said tooth section of said stator plates, and said hub sections of said first and second end caps align with said tooth section of said stator plates.

8. (Original) The winding end cap assembly of claim 6 wherein said first and second inner winding retainer sections extend axially along circumferential

projections on a radially inner end of said tooth section of said stator segment core.

9. (Original) The winding end cap assembly of claim 3 wherein said outer section of said first end cap receives first and second terminals for connecting to opposite ends of winding wire.

10. (Original) The winding end cap assembly of claim 2 wherein said first and second end caps and said first and second inner winding retainer sections are molded integrally.

11. (Original) The winding end cap assembly of claim 3 wherein said first and second end caps and said first and second inner winding retainer sections define a continuous annular channel that receives winding wire.

12. (Original) The winding end cap assembly of claim 3 further comprising:
first and second outer retainer sections that connect said first and second end caps adjacent to said outer sections of said first and second end caps.

13. (Original) The winding end cap assembly of claim 3 wherein said outer section includes a cavity.

14. (Original) The winding end cap assembly of claim 3 wherein said outer section includes a groove on a radially outer surface thereof.

15. (Currently Amended) A switched reluctance electric machine comprising:
a segmented stator including a plurality of stator segment assemblies each with a stator segment core that includes a plurality of stator plates that are stacked in an axial direction; and
an end cap assembly that includes first and second end caps that are ~~attached to~~ arranged adjacent to said stator plates that are located at opposite axial end surfaces of said stator segment core and a first inner winding retainer section that extends axially to connect an inner end of said first end cap to an inner end of said second end cap; and
winding wire that is wound around said stator core and said end cap assembly, wherein said end cap assembly is not located between said winding wire and radial side surfaces of said stator segment core.

16. (Original) The switched reluctance electric machine of claim 15 wherein said first and second end caps include an outer section, an inner section and a hub section that connects said outer section to said inner section.

17. (Original) The switched reluctance electric machine of claim 16 further comprising:

first and second outer retainer sections that connect said first and second end caps adjacent to said outer sections of said first and second end caps.

18. (Currently Amended) The switched reluctance electric machine of claim 16

wherein said outer section of said first end cap receives first and second terminals that are connected to opposite ends of said winding wire.

19. (Currently Amended) The switched reluctance electric machine of claim 15, further comprising:

~~_____winding wire that is wound around said stator segment core and said end cap assembly; and~~

~~_____insulation that is located between said winding wire and said stator segment core.~~

20. (Currently Amended) A stator segment assembly for a stator of a switched reluctance electric machine comprising:

a stator segment core for a segmented stator that includes a plurality of stator plates that are stacked in an axial direction and that define a radially outer rim section and a tooth section that extends radially inwardly from a center portion of said radially outer rim section;~~and~~

an end cap assembly that defines a continuous annular channel and that includes first and second end caps that are positioned adjacent to said stator plates that are located at opposite axial end surfaces of said stator segment core and first and second inner winding retainer sections that extend axially to connect inner ends of said first and second end caps together, wherein said first and second inner winding retainer sections engage inner ends of said tooth section; and

~~_____winding wire that is wound around said stator segment core and said first~~

and second end caps, wherein said end cap assembly is not located between said winding wire and radial side surfaces of said stator segment core.

21. (Original) The stator segment assembly of claim 20 wherein said first and second end caps include an outer section, an inner section and a hub section that connects said outer section to said inner section.

22. (Original) The stator segment assembly of claim 21 further comprising:
first and second outer retainer sections that connect said first and second end caps adjacent to said outer sections of said first and second end caps.

23. (Original) The stator segment assembly of claim 20 wherein said outer section of said first end cap receives first and second terminals for connecting opposite ends of winding wire.

24. (Currently Amended) The stator segment assembly of claim 20 further comprising:

~~winding wire that is wound in said continuous annular channel; and~~
insulation that is located between said winding wire and said stator segment core.

25. (Currently Amended) A stator for a switched reluctance electric machine comprising:

a plurality of stator segment assemblies each including a stator segment core that includes a plurality of stator plates that are stacked in an axial direction, a winding end cap assembly including first and second end caps positioned adjacent to said stator plates that are located at opposite axial end surfaces of said stator segment core, and windings wound around said first and second end caps and said stator segment core, wherein said end cap assembly is not located between said windings and radial side surfaces of said stator segment core.

26. (Original) The stator of claim 25 wherein said first and second end caps include an outer section, an inner section and a hub section that connects said outer section to said inner section.

27. (Original) The stator of claim 26 wherein said winding end cap assembly includes first and second inner retainer sections that connect said inner sections of said first and second end caps together.

28. (Original) The stator of claim 27 wherein said winding end cap assembly includes first and second outer retainer sections that connect one of said outer sections and said hub sections of said first and second end caps together.

29. (Currently Amended) A stator segment assembly for a circumferentially segmented stator of an electric machine, comprising:

a stator segment core that includes a plurality of stator plates that are

stacked in an axial direction and that define ~~for~~ a stator pole of said stator segment assembly that includes first and second side surfaces that extend axially;

an end cap assembly including a first winding retainer section that extends continuously along said first axial side surface, a second winding retainer section that extends continuously along said second axial side surface, and a third winding retainer section that extends continuously along said first axial side surface in a position that is radially outside of said first winding retainer section, a fourth winding retainer section that extends continuously along said second axial side surface in a position that is radially outside of said second winding retainer section, a first end cap that is connected to one end surface of said stator segment core and that is connected to one end of said first winding retainer section, and a second end cap that is connected to an opposite end surface of said stator segment core and that is connected to an opposite end of said first winding retainer section; and

winding wire that is wound around said stator segment core and said first and second end caps and that is retained by said first winding retainer section, wherein said end cap assembly is not located between said winding wire and radial side surfaces of said stator segment core.

Claims 30 – 35 (Cancelled).